WE CLAIM:

1. A two-part metal protection composition comprising:

an aqueous metal treatment conversion coating component that comprises an admixture of an acid and a coating forming component; and

an aqueous protective coating component that is applied over metal treated with the aqueous metal treatment conversion coating component and comprises an admixture of a blister suppressing agent and an organic film forming protective component.

2. A two-part metal protection composition according to claim 1, wherein the aqueous metal treatment conversion coating component further comprises an accelerator.

3. A two-part metal protection composition according to claim 1, wherein the coating forming component of the aqueous metal treatment conversion coating component comprises an organic compound.

4. A two-part metal protection composition according to claim 1, wherein the organic film forming protective component further comprises one or more of polyurethanes, amino resins, acrylic resins, alkyd resins, epoxy resins, epoxy-acrylate resins, phenolic resins, cyclized olefin rubbers, halogenated polyolefins, halo-sulfonated polyolefins, polyester resins, polybutadiene rubbers, styrene-butadiene, polyvinyl alcohol resins, natural resins, and resins derived from ethylenicially unsaturated monomers.

5. A two-part metal protection composition according to claim 1, wherein the organic film forming protective component comprises a phenolic compound.

6. A two-part metal protection composition according to claim 1, wherein the aqueous protective coating component further comprises a flexibilizer.

7. A two-part metal protection composition according to claim 1, wherein the aqueous metal treatment conversion coating component further comprises a flexibilizer.

8. A two-part metal protection composition according to claim 1, wherein the acid comprises one or more of hydrofluoric acid, phosphoric acid, sulfuric acid, hydrochloric acid, phosphonic acid, phosphorous acid, organo-phosphonic acids, organo-phosphorous acid, organo-phosphonate acid, hypophosphorous acid, inorganic and organic phosphoric acid esters and nitric acid.

9. A two-part metal protection composition according to claim 1, wherein the acid comprises one or more of phosphoric acid and hydrofluoric acid.

10. A two-part metal protection composition according to claim 3, wherein the organic compound of the coating forming component comprises a phenolic compound.

11. A two-part metal protection composition according to claim 2, wherein the accelerator comprises hydroxylamine, bromates, chlorates, nitrates, nitrites, peroxides, organic nitro-compounds, oxo-nitrogen compounds, oximes, tungsten and molybdenum compounds, perchlorates, chlorites and perborates.

12. A two-part metal protection composition according to claim 2, wherein the accelerator comprises hydroxylamine.

13. A two-part metal protection composition according to claim 1, wherein the blister suppressing agent comprises an oxidizing agent.

14. A two-part metal protection composition according to claim 1, wherein the aqueous metal treatment conversion coating component further comprises an accelerator

and wherein the blister suppressing agent comprises an organic oxidizing agent that includes one or more of organic nitro compounds, oximes and oxo-nitrogen compounds.

15. A two-part metal protection composition according to claim 14, wherein the organic oxidizing agent comprise an organic nitro compound.

16. A two-part metal protection composition according to claim 15, wherein the organic nitro compound comprises one or more of nitroguanidine; aromatic nitrosulfonates; Naphthol Yellow S; and picric acid (trinitrophenol).

17. A two-part metal protection composition according to claim 16, wherein the aromatic nitrosulfonate comprises nitro or dinitrobenzenesulfonate and the salts thereof.

18. A two-part metal protection composition according to claim 17, wherein the aromatic nitrosulfonate comprises, nitrobenzenesulfonate and the salts thereof.

19. A two-part metal protection composition according to claim 18, wherein the organic nitro compound comprises a mixture of nitroguanidine and sodium nitrobenzenesulfonate.

20. A two-part metal protection composition according to claim 15, wherein the accelerator comprises hydroxylamine.

21. A two-part metal protection composition according to claim 19, wherein the accelerator comprises hydroxylamine.

22. A two-part metal protection composition according to claim 10, wherein the phenolic compound of the coating forming component comprises an aqueous dispersion of a phenolic novolak resin that includes a reaction product of

(i) a phenolic resin precursor;

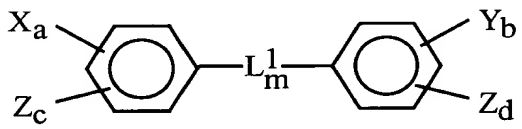
(ii) a modifying agent wherein the modifying agent includes;

(a) at least one functional moiety that enables the modifying agent to react with the phenolic resin precursor;

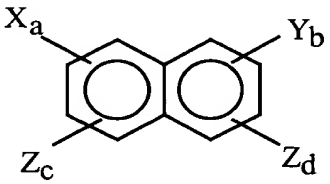
(b) at least one ionic moiety; and

(iii) at least one multi-hydroxy phenolic compound.

23. A two-part metal protection composition according to claim 22, wherein the modifying agent comprises a structure represented by formula Ia or Ib:



Formula Ia



Formula Ib

wherein X is the ionic moiety; Y is the reaction-enabling moiety; Z is a chelating substituent; L^1 is a divalent linking group; a is 1; b is 1 to 4; m is 0 or 1; and c and d are each independently 0 to 3, provided there are not more than 4 substituents on each aromatic ring.

24. A two-part metal protection composition according to claim 5, wherein the phenolic compound of the aqueous protective coating component comprises an aqueous dispersion of a phenolic novolak resin that includes a reaction product of:

(i) a phenolic resin precursor;

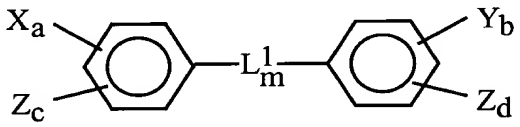
(ii) a modifying agent wherein the modifying agent includes;

(a) at least one functional moiety that enables the modifying agent to react with the phenolic resin precursor;

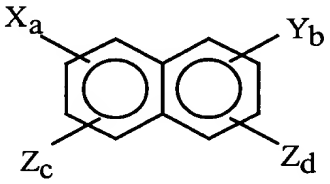
(b) at least one ionic moiety; and

(iii) at least one multi-hydroxy phenolic compound.

25. A two-part metal protection composition according to claim 24, wherein the modifying agent comprises a structure represented by formula Ia or Ib:



Formula Ia



Formula Ib

wherein X is the ionic moiety; Y is the reaction-enabling moiety; Z is a chelating substituent; L^1 is a divalent linking group; a is 1; b is 1 to 4; m is 0 or 1; and c and d are each independently 0 to 3, provided there are not more than 4 substituents on each aromatic ring.

26. A two-part metal protection composition according to claim 24, wherein the aqueous metal treatment conversion coating component and the aqueous protective coating component are autodepositable.

27. A method for treating a metallic surface comprising:

(a) applying an aqueous metal treatment conversion coating component that comprises an admixture of an acid and a coating forming component; and

(b) applying an aqueous protective coating component to the surface that has at least been partially treated with the aqueous metal treatment conversion coating component and comprises an admixture of a blister suppressing agent and an organic film forming protective component.

28. A method according to claim 27, further comprising: (a1) drying the aqueous metal treatment conversion coating component before applying the aqueous protective coating component.

29. A method according to claim 27, wherein the aqueous metal treatment conversion coating component further comprises an accelerator.

30. A method according to claim 27, wherein the coating forming component comprises an organic compound.

31. A method according to claim 30, wherein the organic compound of the coating forming component comprises a phenolic compound.

32. A method according to claim 27, wherein the aqueous protective coating component is a primer coating.

33. A method according to claim 31, wherein the aqueous protective coating component further comprises one or more phenolic compounds.

34. A method according to claim 33, wherein the aqueous protective coating component further comprises a flexibilizer.

35. A method according to claim 29, wherein the accelerator comprises hydroxylamine, bromates, chlorates, nitrates, nitrites, peroxides, organic nitro-compounds, oxo-nitrogen compounds, oximes, tungsten and molybdenum compounds, perchlorates, chlorites and perborates.

36. A method according to claim 29, wherein the accelerator comprises hydroxylamine.

37. A method according to claim 27, wherein the blister suppressing agent comprises an oxidizing agent.

38. A method according to claim 27, wherein the aqueous metal treatment conversion coating component further comprises an accelerator and wherein the blister suppressing agent comprises an organic oxidizing agent that includes one or more of organic nitro compounds, oximes and oxo-nitrogen compounds.

39. A method according to claim 38, wherein the organic oxidizing agent comprises an organic nitro compound.

40. A method according to claim 39, wherein the organic nitro compound comprises one or more of nitroguanidine; aromatic nitrosulfonates, Naphthol Yellow S; and picric acid (trinitrophenol).

41. A method according to claim 40, wherein the aromatic nitrosulfonate comprises nitro or dinitrobenzenesulfonate and the salts thereof.

42. A method according to claim 41, wherein the aromatic nitrosulfonate comprises nitrobenzenesulfonate and the salts thereof.

43. A method according to claim 42, wherein the organic nitro compound comprises a mixture of nitroguanidine and sodium nitrobenzenesulfonate.

44. A method according to claim 39, wherein the accelerator comprises hydroxylamine.

45. A method according to claim 43, wherein the accelerator comprises hydroxylamine.

46. A method for bonding an elastomeric substrate surface to a metallic substrate surface comprising:

(a) applying an aqueous metal treatment conversion coating component to the surface wherein the aqueous metal treatment conversion coating component comprises an admixture of an acid and a coating forming component;

(b) applying an aqueous coating or primer composition to the surface that has at least been partially treated with the aqueous metal treatment conversion coating component and comprises an admixture of a blister suppressing agent and an organic film forming protective component; and

(c) applying an adhesive overcoat to effect bonding of the metallic substrate to the elastomeric substrate.

47. A method according to claim 46, wherein the aqueous metal treatment conversion coating component further comprises an accelerator.

48. A method according to claim 46, wherein the aqueous metal treatment conversion coating component and the aqueous coating or primer are autodepositable.